Preliminary Score = Projected Score

Facility Name: Monroe Township Wells #4 + #5

Location: Monroe Township, Gloucester County

EPA Region: II

Person(s) in Charge of the Facility:

Name of Reviewer: D. Van Ech **Date:** 6/30/83

General Description of the Facility:

(For example: landfill, surface impoundment, pile, container; types of hazardous substances; location of the facility; contamination route of major concern; types of information needed for rating; agency action, etc.)

Monroe Township Municipal wells #4 & #5 are located on two separate parcels of land in Williamstown, Monroe Township, Gloucester Co. On June 21, 1976, a mercury contamination problem was detected. Monroe township has a population of approximately 28,000 using groundwater

Scores: $S_M = 42.23$ ($S_{gw} = 73.07$ $S_{sw} = 0^*$ $S_a = 0^*$)

$S_{FE} =$

$S_{DC} =$

* Contaminant is not available to air or surface water.

HRS COVER SHEET

247754

GROUND WATER ROUTE WORK SHEET

	Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1	Observed Release	0 45	1	45	45	3.1
	If observed release is given a score of 45, proceed to line 4. If observed release is given a score of 0, proceed to line 2.					
2	Route Characteristics					3.2
	Depth to Aquifer of Concern	0 1 (2) 3	2	4	6	
	Net Precipitation	0 1 (2) 3	1	2	3	
	Permeability of the Unsaturated Zone	0 (1) 2 3	1	1	3	
	Physical State	0 1 2 (3)	1	3	3	
	Total Route Characteristics Score			10	15	
3	Containment	0 1 2 (3)	1	3	3	3.3
4	Waste Characteristics					3.4
	Toxicity/Persistence	0 3 6 9 12 15 (18)	1	18	18	
	Hazardous Waste Quantity	0 (1) 2 3 4 5 6 7 8	1	1	8	
	Total Waste Characteristics Score			19	26	
5	Targets					3.5
	Ground Water Use	0 1 2 (3)	3	9	9	
	Distance to Nearest Well/Population Served	0 4 6 8 10 / 12 16 18 20 / 24 30 32 35 (40)	1	40	40	
	Total Targets Score			49	49	
6	If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5 .			41895	57.330	
7	Divide line 6 by 57,330 and multiply by 100	S_{gw} = 73.07				

SURFACE WATER ROUTE WORK SHEET

Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1 Observed Release	0 45	1	0	45	4.1
If observed release is given a value of 45, proceed to line 4. If observed release is given a value of 0, proceed to line 2.					
2 Route Characteristics					4.2
Facility Slope and Intervening Terrain	0 1 2 3	1		3	
1-yr. 24-hr. Rainfall	0 1 2 3	1		3	
Distance to Nearest Surface Water	0 1 2 3	2		6	
Physical State	0 1 2 3	1		3	
Total Route Characteristics Score				15	
3 Containment	0 1 2 3	1		3	4.3
4 Waste Characteristics					4.4
Toxicity/Persistence	0 3 6 9 12 15 18	1		18	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
Total Waste Characteristics Score				26	
5 Targets					4.5
Surface Water Use	0 1 2 3	3		9	
Distance to a Sensitive Environment	0 1 2 3	2		6	
Population Served/Distance to Water Intake Downstream	0 4 6 8 10 12 16 18 20 24 30 32 35 40	1		40	
Total Targets Score				55	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5				64,350	
7 Divide line 6 by 64,350 and multiply by 100	S_{SW} = 0				

AIR ROUTE WORK SHEET

	Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1	Observed Release	0 45	1	0	45	5.1
	Date and Location:					
	Sampling Protocol:					
	If line 1 is 0, the S = 0. Enter on line 5. If line 1 is 45, then proceed to line 2.					
2	Waste Characteristics					5.2
	Reactivity and Incompatibility	0 1 2 3	1		3	
	Toxicity	0 1 2 3	3		9	
	Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
		Total Waste Characteristics Score			20	
3	Targets					5.3
	Population Within 4-Mile Radius	0 9 12 15 18 21 24 27 30	1		30	
	Distance to Sensitive Environment	0 1 2 3	2		6	
	Land Use	0 1 2 3	1		3	
		Total Targets Score			39	
4	Multiply 1 x 2 x 3				35,100	
5	Divide line 4 by 35,100 and multiply by 100 S_a = 0					

	S	S^2
Groundwater Route Score (S_{gw})	73.07	5339.22
Surface Water Route Score (S_{sw})	0	0
Air Route Score (S_a)	0	0
$S_{gw}^2 + S_{sw}^2 + S_a^2$		5339.22
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		73.07
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73$		$S_M = 42.23$

WORKSHEET FOR COMPUTING S_M

FIRE AND EXPLOSION WORK SHEET

	Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1	Containment	1 3			3	7.1
2	Waste Characteristics					7.2
	Direct Evidence	0 3	1		3	
	Ignitability	0 1 2 3	1		3	
	Reactivity	0 1 2 3	1		3	
	Incompatibility	0 1 2 3	1		3	
	Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
	Total Waste Characteristics Score				20	
3	Targets					7.3
	Distance to Nearest Population	0 1 2 3 4 5	1		5	
	Distance to Nearest Building	0 1 2 3	1		3	
	Distance to Sensitive Environment	0 1 2 3	1		3	
	Land Use	0 1 2 3	1		3	
	Population Within 2-Mile Radius	0 1 2 3 4 5	1		5	
	Buildings Within 2-Mile Radius	0 1 2 3 4 5	1		5	
	Total Targets Score				24	
4	Multiply 1 x 2 x 3				1,440	
5	Divide line 5 by 1,440 and multiply by 100	S_{FE} =				

DIRECT CONTACT WORK SHEET

	Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1	Observed Incident	0 45	1		45	8.1
	If line 1 is 45, proceed to line 4 If line 1 is 0, proceed to line 2					
2	Accessibility	0 1 2 3	1		3	8.2
3	Containment	0 15	1		15	8.3
4	Waste Characteristics Toxicity	0 1 2 3	5		15	8.4
5	Targets					8.5
	Population Within a 1-Mile Radius	0 1 2 3 4 5	4		20	
	Distance to a Critical Habitat	0 1 2 3	4		12	
	Total Targets Score				32	
6	If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5				21,600	
7	Divide line 6 by 21,600 and multiply by 100 S_{DC} =					